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The Influence of Credit Risk Using Derivative Financial Instruments on the Performance Commercial banks

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Abstract:

The research aims to reveal the influence of credit risks using Derivative Financial Instruments (DFIs) on the financial performance of commercial banks in Iraq. To achieve the research aim and test its main hypothesis, a questionnaire is distributed to listed commercial banks in the Iraq Stock Exchange and that apply DFIs. The researcher used the questionnaire as the main tool in collecting data. Financial data of the variables of the study are analysed by a simple regression method, the arithmetic mean(AM) and standard deviation. The study used the statistical program (SPSS) to analyse the data**.** The research sample consisted of (70) questionnaire forms that were distributed and (68) valid forms were recovered. Research results show that using DFIs reduces exposure to interest rate risks, exchange rates and price fluctuations. The financial crisis is the result of the excessive use of financial derivatives outside regulatory restrictions and securitization to collect liquidity. Financial derivatives represent the fastest-growing form of financial transactions and continue to grow even in crisis conditions. DFIs help to identify risks associated with economic losses incurred by the economic unit as a result of weaknesses in the management and operation of derivatives contracts. Accounting profit-based performance indicators, such as return on assets, return on property rights, earnings per share and cash flows per share, contribute to the evaluation of performance, as well as the use of DFIs contribute to increasing profits. The study shows that credit risks using DFIs have a significant positive influence on performances financial in commercial banks in Iraq.

Paper type: Research paper.
Keywords: Credit Risk, Derivative Financial Instruments (DFIs), Bank Performance.

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1-Introduction:

Determining the influence of credit risks using financial derivatives on the performance of commercial banks in Iraq has been a topic of research, although it has not been adequately researched at least concerning commercial banking. However, these institutions are funded in DFI markets. (The intermediary and the financial derivatives markets). DFIs aim to reduce risks and increase price hedging, as they provide appropriate conditions for covering risks, particularly, their handling aims to reduce the risk of fluctuations in commodity and currency prices, exchange rates, interest, equity and bonds, and rates of return. However, the nature of these instruments and their association with expectations have made them risky in themselves. They represent subsidiary contracts that arise or derive from core contracts and financial instruments. They concern items outside the statement of financial position and investment instruments derived from such assets that their values are limited by one or more of the associated underlying assets, instruments or indicators, resulting from such sub-contracts, and derivative investment instruments. As far as known as engineering financial, DFIs have evolved into securitization technology in spreading credit risk to a broad base of creditors, which in turn contributes to creating a market that will fill the needs of sectors into long-term financing, such as mortgage finance and financing institutions, that lead to improve performance of banks.

1.1 literature Review:

Several studies discussed DFIs Chang et al. (2018) investigate the determinants and influence of the use of DF in the banking sector, as they are mainly used in commercial business. This empirical study shows that banks that deal with financial derivatives have high profits, low net interest margins, and increased flows to transaction deposits. The profitability of banks is significantly and positively linked to the use of these derivatives, foreign exchange and interest rates. In addition, banks that have high deposits and liquidity are more likely to use foreign exchange derivatives. The study found a positive relationship between bank profitability and the use of financial derivatives between 2004 and 2008. Furthermore, it found that banks with a high level of liquidity are more likely to use DF. Results of the empirical study also show that the use of financial derivatives leads to an increase in both bank risk and market value. Milos and Milos (2022) indicated that the use of financial derivatives by the EU banking sector affected its market valuation in the wake of the financial crisis. The study was conducted on 120 European financial institutions listed on the EU Stock Exchange for 14 years (2008-2021). Researchers used the Generalized Moments Method (GMM) to determine whether evaluating the use of financial derivatives for financial intermediaries to increase in their value market. Variables Control, like profitability, size, market expectations, banking risk, performance liquidity, and financial condition are also taken into consideration. The main finding of the study indicated that the market value is negatively affected by the accumulation of derivative assets. Percevic and Ercegovic (2023) investigated whether the DFI measurement has a direct impact on the financial condition and profitability of banks. The research sample represented all banks listed on the Croatian Stock Exchange that deal in derivative financial instruments in their financial statements, and the study included the period from (2017 to 2020). Descriptive methods were used as statistical analyses were applied to determine the impact of measuring DF on the financial statements. The results of the study stated that derivative financial instruments in its financial statements represent more than 80% of the total assets of the Croatian banking sector. The share of DF measurement effects in the total assets of banks that are recognized by them is less than 0.5%. The research results also showed a moderate to strong positive relationship between derivative financial assets and banks' total assets and a moderate to strong negative relationship between derivative financing obligations and banks' total assets. Moreover, the results show a weak positive correlation between financial derivatives and return on assets (ROA) and a weak negative correlation between DF obligations and return on assets (ROA). Andrew et al. (2023) proved the impact of financial derivative risk information disclosure on financial reporting quality in a sample of Nigerian banks. Data were collected from the annual

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financial reports of twelve listed Nigerian commercial banks for ten years from 2012 to 2021. While derivative assets served as a proxy for the independent variable, Jones discretionary accrual was used to measure reporting quality and cash flow assets ratio was used As a control variable. The hypothesis was tested using the ordinary pooled regression analysis technique. the results of the technique indicate that disclosure of financial derivatives risk information leads to an increase in the estimated maturity value, which undermines financial reporting quality. As a result of this finding, the research, concludes that disclosure of financial derivative risk information has a negative impact on the quality of financial reports issued by Nigerian deposit money banks.

There are several studies that have discussed Financial Performance. Chanzu and Gekara (2014) examined the extent to which the performance financial of companies listed on the Nairobi Stock Exchange (NSE) is affected by the use of financial derivatives in their business activity. In addition, the researchers determined how to manage risks, their effectiveness, the price of the disc, and price stability. The study sample consisted of 11 companies listed on the NSE in the financial derivatives market. A questionnaire was distributed to collect data. The study has targeted financial officers of the sample and NSE officials. Statistical methods were used to analyse the collected data using descriptive and inferential statistics. Qualitative responses were analysed using content analysis. The study conducted a correlation analysis to determine the performance of listed companies in NSX before and after the adoption of financial derivatives. The results showed that price stability contributed mainly to improving the financial performance of companies, and other variables also contributed positively to the financial performance of listed companies in NSX. MacCarthy (2017) provided The impact of derivatives financial (DF) on the financial performance of listed companies in the Ghana Stock Exchange (GSE). Data about DF, regulated business risks, and financial performance in terms of return on investment were collected for the period 2011-2015. The size of the sample is 23 listed financial companies in GSE and they were selected randomly. Statistical methods represented were used to test four hypotheses. The study found a strong positive correlation between financial derivatives and regulated business risks. In addition, there is a strong positive correlation between financial derivatives and business performance in terms of ROI, This means that the financial performance of companies improves largely when they trade in financial derivatives. Therefore, Financial firms should promote financial growth, and priority should be given to financial derivatives and their management. Bachiller et al. (2021) explained that despite the huge amount of research on the relationship between financial hedging and corporate financial performance, the literature does not yet provide any clear results about whether the use of DF leads to the superior financial performance of the company. Using a meta-analysis of 51 studies, this research explains the lack of consensus is due to different country characteristics and types of hedging. The results of the study show that the use of foreign currency derivatives, alone or in combination with other types of derivatives, positively drives company value. They also show that hedging represents an economic advantage for all companies, especially those companies that operate in the common law system and developed countries. Omar and Abdul Kadir (2022) studied the impact of financial derivatives on the financial performance of Kenyan commercial banks. The results of the study show that there is no clear relationship between financial derivatives and the financial performance of commercial banks in Kenya. In addition, due to the negative nature of the relationship, an increase in financial derivatives will lead to a decline in the financial performance of commercial banks in Kenya. To achieve the aims of establishing a stable and secure banking system in Kenya, derivatives financia1 must be appropriately used in a manner that furthers the aims of establishing a reliable and secure banking system in Kenya.

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Several Studies have Linked DFIs risks and financial performance. Mohamed et al. (2017) examined whether the use of FD enables the bank to reduce its risk system. The researcher collected data from 19 commercial banks in the Gulf Cooperation Council countries for the period from 2000 to 2013. The results of the research showed that the use of financial derivatives led to a decrease in systemic risks for their commercial banks, and the impact of financial performance indicators varied between positive and negative impact. However, banks use financial derivatives with excess off-balance sheet assets to hedge risks. In addition, a rise in GDP does not give bank managers security fees, so they tend to use financial derivatives to hedge when inflation and unemployment rates increase. Huan and Parbonetti (2019) explained the relationship between equity risk and the use of derivatives for a sample of eighteen banks in advanced markets for the period from 2006 to 2015. The findings of the study suggest that banks' use of derivatives has increased their risk, as derivatives comprise a wide variety of financial contracts, which vary according to their nature, risks and duration. The most important finding referred to the effect of adhering to financial instruments to classify, analyse and assess risks without relying on unaccounted personal jurisprudence that could result in unaccounted losses. The most important recommendation was the need to understand the impact of the use of derivatives on the bank's risk and the consequences of the selection of the bank's business model. Keffala (2020) clarified the influence of the use of derivative instruments (contracts futures, swaps and options) on both banking risk and financial performance. Therefore, quarterly share price data were used during (2003-2009) as well as annually updated and developed accounting data were collected from the bank that covered the period (2003-2010). Key results showed that, except for options, other derivative instruments reduce banking risk. Thus, there is no evidence to attest to the relevance of the derivative instruments in the bankruptcy of banks either. The use of the derivatives does not diminish the banks' performance. The most important recommendation was the need to hedge the handling of the DFIs. Al-Suwaifi (2021) identified the problems and risks that limit the handling of derivatives as well as limiting factors in the light of derivatives' treatment controls. To achieve the objective of the research, a field study was conducted through the design of a survey list that was directed to two teams who work in the area of financial derivatives. The first team is the front office and the support office which are considered rare workers in the banking sector because the Central Bank's Bank seizes to deal with financial derivatives other than at risk reduction limits. The study indicates the factors that must be available in light of the controls and control procedures approved by the Basel III Committee and the applicable accounting standards (IFRS9) to ensure the validity of applying the transaction in the derivatives and achieve the desired results of the investment. Getahun et al. (2022) explained that credit risk management has become of wide importance in economic companies because it includes many basic transactions in most entities as well as the industry faces a protection crisis in the period of recession particularly at present. Moreover, it represents a critical means or concept that determines the entity's business performance to achieve success, sustainable growth, and sustainable profitability. The research examined the relationship between credit risk management and its impact on the performance of commercial banks in Ethiopia. The data was collected from the selected banks for a period of six years from 2009 to 2014. To test the relationship between credit risk and the company's financial performance, the data was analysed by descriptive statistics and a data regression model using SPSS. Return on Assets (ROA) and return on shareholders' equity were used as variables. Performance of commercial banks are (CAR), (NPLR), (LPTLR), (LPNPLR), Loan Provisions to Total Assets Ratio (LPTAR), and Non-Performing Loan Ratio to Total Loans (NPLTLR). The study revealed that there is a strong relationship between credit risk management and the performance of commercial banks in Ethiopia".

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The problem of the study was clarified through the researcher's notice. Although DFIs are one of the important forms of investment that have received wide interest in financial markets in recent decades, they include the problem of insufficient awareness of dealing with them as well as the lack of recognition of accounting rules that allow for the provision of information needed by the dealer. It also generates credit risks due to its use, which affects banks' performance, especially in informal markets. Therefore, the research problem can formulated through the next question: What is the level of influence the credit risks of DFIs on the performance of commercial banks?

The Research aims to study the theoretical and conceptual framework of the influence of credit risks using derivative financial Instruments (DFIs) on the performance of Iraqi banks. It aims to measure the credit risks using DF on the performance of Iraqi banks from the point of view of financial intermediaries operating in the Iraq Stock Exchange.

The Importance of Research is highlighted by demonstrating the impact of credit risks of DFIs on the performance of Iraqi banks, which contributes to the recognition of the importance of DFIs as an area of subsequent studies.

2.Material and Methods:

2.1 Research methodology :

The research uses the inductive approach to study and extrapolate some previous studies on the topic of the research. The approach is combined with the deductive approach to interpret and analyse research results to test its hypothesis and verify test results using appropriate statistical analysis for respondents' answers to the designed questionnaire, which is used to collect data from the sample study. The questionnaire was distributed to 70 respondents, and 68 valid questionnaires were restored.

2.2.Hypothesis test:

Research is based on the following main hypothesis: There is a statistically significant influence ~~on~~ the credit risks of development finance institutions on the performance of banking activities.

2.3 Research variables:

2.3.1 Derivative Financial Instruments (DFIs) :

Derivative Financial Instruments (DFIs) are financial rights that replace other financial rights so that the amount of the derivative instrument depends on the value of the asset, to which a holder is entitled. They include several financial instruments that are used for many objectives such as administration risk, and hedging. In addition to Derivatives, speculation includes a range wide, of financial contracts that vary according to interest, risks and duration of financial position. Anyango (2016) Confirmed that derivatives are financial instruments that derive their value from the values of other implicit assets, such as rates of interest, stocks, commodities, foreign currencies, and bonds. For example, a treasury bond futures contract obligates parties to exchange treasury bonds at a future date and a predetermined price. The value of futures contracts depends on the implicit value of treasury securities. As an illustration, assuming the price of the treasure bond rises, the value of the futures contract will also increase because the buyer of the futures contract is now eligible to acquire an asset worth more. They are instruments which appear in the statement of financial position, because although they create a conditional mutual obligation cash flow. However, they do not have to have any initial cash flow or often cause a small cash flow of the initial margin of profit, so some call them zero investments. Dagher (2005) defined DFIs as contracts adjusted at a future date to bear a cost but modest compared to the value of the contract. Moreover, the gains or losses of the derivative parties of the financial asset depend on the replacement of the contract. Hamad (2010) states that DFI derives their value from current prices for financial assets, physical assets, contracts such as bonds, shares, gold, and other goods and exchange foreign. Parameswaran (2011) states that DFIs are assets that confer their owner certain rights or obligations as appropriate and they are

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available why the presence of the underlying asset markets or an investment portfolio of assets in place of a contract. In other words, these assets are derived from core assets.

2.3.2 Importance of Derivative Financial Instruments:

The emergence of DFIs contracts was not a coincidence or a mere innovation of new securities, but they appeared because of the need and urgency of the securities market and the confirmation. Therefore, the economic importance of derivatives contracts is to provide coverage service against price risk changes. It also offers the opportunity to plan cash flows, new investment opportunities, and as a price forecasting instrument in the market present at later dates. Moreover, it contributes to the speedy implementation of investment strategies and the perfection of the stock market. Handi (2011) indicated that the economic importance of derivatives is highlighted in (i)They manage and revitalize the transaction on assets instead of contracts, as the transaction in the derivatives market. (ii) Low transaction costs are one of its distinguishing features, as they are reduced to a level that makes it difficult to compete in current markets. (iii) They offer opportunities to speculators, as speculators attempt to make profits through their price expectations, and their profit pursuit by entering into a party to the contract. (iv) They provide a social service because it is the party to which the risks that other parties that possess the asset do not want are passed on: (the seller) or wishes to possess in the future (the buyer) an actual need for it, which means that it removes the other party's uncertainty and provides it with a greater opportunity to concentrate its efforts on other matters.

Percevic and Ercegovic (2023) explained that DFI is one of the financial instruments which its value is based on the value of the underlying element, including the market value of the debt or stock financial instrument, the price of other assets, the interest rate, and the value of the asset, Stock assets. Andrew et al. (2023) emphasized that financial derivatives disclose the expected price in the current market, which is a transaction that provides clients with information about the price of the asset being contracted in the current market. The delivery date will also be one of the most prominent functions of financial derivative contracts, and it is also a good tool for exploring price levels, that is, exploring the current market price level on the delivery date. Moreover, Through the prices of financial derivative contracts, the price of the asset in the current market begins to change. This reflects the reasons for the general trend in the trader's expectations and works to supply coverage against the risks of price, as financial derivatives are considered a good hedging tool against the risks of changing prices. After all, it transfers those risks to another party without the need for a prior purchase of the asset instead of the contract because the coverage against these risks is the primary function of financial derivatives and financial markets as well as it is the cause for the existence of these markets.

Beneda (2013) pointed out that financial derivatives plan for better cash flows because financial derivative contracts have the opportunity to plan cash flows. The contracting parties must work to plan their future flows very efficiently as long as the seller has an understanding that the original sale proceeds depend primarily on the contract price, and the buyer realizes that the purchase payments depend on the contract price.

2.3.3 Characteristics of DFIs Contracts:

Jojo (2018) showed that derivative contracts are characterized by the following:

❖ They are settled on a future date. They do not require initial investments, but a small initial amount compared to the value of the contracts.

❖ Their value depends on the value of the underlying asset, i.e. the asset subject to the contract. The contract includes setting a certain price for future implementation, determining the amount to which the price applies, determining the time at which the contract takes effect, and determining the variable (thing) of the contract place, which may be a fixed interest price, securities price, commodity price, foreign exchange price or otherwise.

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2.3.4 Users of Derivative Financial Instruments :

Users can be identified as follows (Al-Arada, 2014):

a. Speculators: Speculation is based on betting on future price movements, so it is used by speculators to achieve gains.

b. Headers: The group that works to reduce the risk to which they are exposed by the bank that adopts a comprehensive system of risk measurement, hedging and management, part of which concerns the management of the risks, to which they are exposed as a score of sway in percentage exchange, currency prices and the reduction of currency prices.

c. Arbitrageurs: A group that emerges when there is a difference between the value of a particular asset and two or more markets by buying at low prices on the market and selling at high prices, resulting in zero-risk profit.

d. Companies: Companies turn to them for protection against the impact of low-interest rates on the return on investment with excess cash, which they use to cover them from the risks associated with productive activity and for additional profit.

e. Pension Funds: They are used to protect the return on investment in bonds to secure the portfolio against exposure to market risks.

f. Real Estate Companies: They sell and buy buildings and lands or give others the right to use them by leasing several bonds, they are used to achieve protection against interest rate movements on bond loans that represent a debt in the company.

g. Retailers: They are used to protect them against exposure to interest rates or exchange rates in foreign exchange markets.

h.Exporters and Importers: They are used against exchange price fluctuations on receipts or payments.

i. Investment banks: which are used for portfolio use at the sale price for a quantity of a financial asset.

Users of DFIs can be divided by the following (Suleiman, 2010):

❖ Category I: End-users who reside in contracts for DFIs for speculation or reservations. They represent a wide range of institutions such as banks, insurance companies, investment companies, investment funds and pension funds.

❖ Category II: Intermediaries and the market industry that meet the needs of end-users through their constant readiness to sell and buy profitably. This category includes investment companies and banks operating in global markets.

2.3.5 Types of Derivative Financial Instruments:

Bendob et al. (2015) indicated that banks' use of financial derivatives had rapid growth in the past decades. In addition, the instability of the financial market system increased around the world. There are four main types of derivative contracts:

a) Options Contract: It is a contract between two extremities (buyer and seller). It gives the buyer the right, not the obligation, to buy or sell assets at the following date if an agreed price to today, to pay the buyer of the option to the seller an amount of money claims the initial price or margin (Allowance). The commodity market is the basis for the formation of options. Producers of these derivatives aim to protect themselves from the risks of abundant production and price degradation (Nagi,2013). Options contracts are legal contracts that grant the holder the right but not the obligation to buy or sell an existing one at a fixed price on or before a predetermined date (Al-Amri, 2013). Options contracts are divided into two main types Berkman et al., 2012): -

❖ **Purchase Option:** the option of granting the purchase right gives the purchaser the truth to extradite the contracted securities or to abstain from receiving them in return for payment of a certain amount to the shareholder for granting the right.

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❖ **Sale Option:** It is the contract with a right to sell. It provides a chance for the owner to protect himself against the risk of a decline in the market value of his security. The option to sell has several names such as payment option and offer option. Both names mean a contract that gives its buyer or owner the right to sell a certain number of shares or other securities at a fixed price within a specified period. In addition, it does not compel the sale by option because the option price clutches the obligation to reimburse the purchase in this case and at the unsuccessful price.

b) Futures Contracts: contracts through which a financial asset is delivered and received at a specified time in the future. Also, the price is determined at the time of the contract's establishment. Moreover, the future contract is typical, because it determines the number of entity entities in the single contract, the date of delivery, and the standard quality of the asset for each type of contract. Future contracts determine the quantity and price of the sales to be delivered and paid at a future date. The elements of futures contracts can be divided into (Al-Hanawi and Al-Abdul, 2010):

❖ **Future Price**: It is the price agreed upon by the parties for long-term contracts to complete the future contract exchange.

❖ **Date of Delivery or Settlement**: The two parties of the contract agree to complete the exchange process on this date.

❖ **Underlying:** It means the thing agreed to be sold and purchased among the parties of the contract which may be goods, securities, indices and currencies.

❖ **Contract Buyer**: It is the party to receiving the object instead of the contract for payment of the agreed price to the second party (seller) on the date specified in the future.

❖ **Contract Seller**: It is the obligated party to pay the substitute of the contract to obtain the agreed price from the first party (buyer) on a future date.

c) A forward contract: It is a contract between two parties, and provides for the sale or purchase of a certain amount of financial or physical asset. The price of an asset shall be fixed in advance upon the conclusion of the contract or the future delivery or settlement contract on a date to be determined by the conclusion of the contract. In this kind of contract, deliver goods to the buyer at the place of contract, at a later date, at a price investor, at the time of the contract and at which the price of execution is priced (Al-Aardhi et al. 2015).

d) Swaps- Exchange Contracts: Contracts concluded between two parties, in which parties agree to exchange cash flows during a future period. These contracts and trade-offs include an obligation between parties to exchange a certain amount of financial, monetary or in-kind assets. According to these contracts, the transaction will be valued at the time of signing the contract, and the asset will be exchanged for the contract at a later date to be agreed upon in advance. There are two types of exchange contracts (Al-Hanawi and Al-Abdul, 2010):-

❖ **Interest Rate Swap Contracts**: According to these contracts, a party of the swap agrees to pay a series of fixed interest rates against receiving a series of cash flows, which depend on variable interest rates. The other party of the swap contract agrees to receive a chain of fixed interest rates against a series of variable interest rates.

❖ **Currency Exchange Contracts**: These contracts represent commitments to exchange a range of cash flows among others. For currency price exchange, other parties generally exchange commissions at fixed prices, floating prices and one currency, wanting to exchange the principal amount, and currency swaps, whereby commissions are exchanged at fixed prices. The principal amount is in currencies different and currency swap contracts are intended to cover the risk of future fluctuations in currency exchange prices.

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2.3.6 Recognizing and Measuring Derivative Financial Instruments According to IFRS 9.

According to International Financial Reporting Standard 9, a derivative financial instrument (DFI) is recognized in the accounting records as well as the statement of financial position because the economic entity becomes a party in the contractual provisions of that instrument. DFI can be recognized in the statement of financial position as an asset (DFI) or a liability (DFI). This depends on the terms of the contract and changes in its fair value between the two reporting dates. In addition, the asset (DFI) is derecognised when the contractual rights to the cash flows from the derivative financial asset expire or when the derivative financial asset is transferred to another economic entity, that is, when the risks and rewards are transferred that are related to derivative financial assets and ownership of derivatives. A derivative financial liability is not recognized at its expiration, that is, when the specific liability is relieved or when it may be cancelled or expire. (IFRS 9, 2022).

2.3.7 Credit Risks of Derivative Financial Instruments:

Credit risk is a potential financial loss resulting from the borrower's failure to meet his obligations to the lender on time. This risk is affected by the lender's income and capital. Loans are the most important sources of credit. Losses of the loan extended to include opportunity costs, as well as expenses and costs related to the pursuit of the distressed loan. Credit risk has become a source of concern and disturbance for traders in exchanges and derivatives in formal and informal financial markets. This kind of risk is prevalent in informal markets and the credit risk of derivatives can be met by assessing counterparties' creditworthiness adhering to specific risk limits, accurately documenting transactions that mitigate credit risk, as well as providing legal obligation to perform contracts (Mohsen, 2006).

2.3.8 Credit risks can be divided into:

1.Market Risks: They can be expressed as price-moving risks in the opposite direction of hedging. These risks concern sudden changes in derivatives contract prices. Most of them are because of fluctuations in asset prices. Moreover, these risks might outcome in a shortage of liquidity. This leads to the deterioration of the prices of certain assets and the lack of the possibility of concluding derivatives contracts to hedge against the likelihood of further deterioration. This requires diagnosing all the elements of these risks and identifying how they interact with each other so that they can be assessed and identifying the instruments that can be used to prevent them (Al-Tantawi, 2008).

2.Operational or Regulatory Risks: These risks are linked with economic casualties that are endured by the economic entity as a result of organizational failure in the administration and process of derivatives contracts during the economic entity. As in the obscurity of coordination among those accountable for transactions in derivatives markets and those responsible for recording and proving the entity's financial books. These risks also arise through settlement and compensation processes as a result of inefficient information systems or the absence of internal controls, failure to conduct settlement and compensation processes with high efficiency or problem detection (insufficient systems, human error, fraud and forgery), which hampers users of derivative instruments from achieving their operational objectives or those related to the preparation of financial reports or obligation and acquiescence, resulting in market participants' unpredictable losses resulting from delays in settlement, errors or assumption.

3.Legal Risks: These risks arise from the inability to perform derivatives contracts as a result of their poor documentation or as a result of the counterparty's lack of necessary contractual powers and uncertain legal status for certain transactions, lack of judicial enforcement capacity in cases of hardship and bankruptcy, or adverse changes in tax laws, or laws prohibiting economic entity from investing in certain types of DFIs. In addition, changes in the legal environment lead to some risks, and these risks are due to the fact that contracts are not legally binding. In other words, they have no IFOR, and the obligation process becomes more difficult if contracts are international.

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4.Settlement Risks: Some financial transactions relating to derivatives instruments are settled on time, or the day same as the application. In the United States financial markets, the settlement period extends to several days. This leads to the loss of one of the parties to the contract because of the prospect of changing prices rapidly through that time or on the same day of implementation.

2.3.9 Performance Measurement:

At present, there is increasing interest in the issues of measuring financial performance, the effectiveness and efficiency of the economic entity, and the extent of its ability to implement and achieve the aims for which it was created, whether the entity has a service activity or aims to achieve profit. Therefore, the focus was on exploiting the available opportunities and capabilities of the entity to provide products quickly and with high quality so that they can be answered to answer customers' expectations and needs to ensure that they reach their aims through increased performance, ensuring ~~its~~ continuity, and growth and development. Thus, performance evaluation is a measure to ensure that the actual performance of the work conforms to the pre-defined performance criteria. The evaluation is a requirement for the economic entity to achieve its objectives based on the established parameters. It is a periodic process that aims to measure strengths and weaknesses in order to achieve a specific goal planned by the entity in advance. Therefore, (Jawad, 2010) explained that performance measurement is one of the important activities in evaluating the economic strategy of an entity, which includes comparing results with predetermined criteria, and analysing deviations, if any. Through this activity, necessary corrections can be made to take into account the degree of discrepancy between actual performance and mandated performance so that performance remains within a degree of alignment with the original plan for acceptable terms as long as it does not exceed agreed-upon.

Al-Mohsen (2010) pointed out that the performance evaluating process is a part of the oversight process, and is a guiding factor for the activities of the economic entity to achieve its objectives. Furthermore, performance evaluation is an extrapolation of the signs and indicators based on which decisions are made, determining the course of activities in case of deviation or confirmation of the direction of the course to achieve the desired objectives. The performance evaluating process is a subsequent process for decision-making, the objective of which is to examine the financial and economic entity position at a given time by using the financial analysis and auditing method. Therefore, the performance evaluation reflects the economic entity activity and is usually associated with the end of the financial year. Mohammed(2011) indicated that the key elements to measure the total performance can be determined by the following:-

1.The quality of assets (return on assets) reflects the value of current credit risk that is associated with the loan portfolio, investments and activities of items outside the statement of financial position. This measure helps to measure management's ability to generate profits from funds available to and under its control. Therefore, return on assets is calculated by dividing net profits by total assets. If this ratio is high, it means the efficiency of the Organization's investment and operational policies. If this ratio is low, it reflects the weak productivity of the economic entity investments.

2.The profit component reflects the quantity and direction of the profit as well as factors that affect the likelihood or type of profit. Profit is measured by the difference between gross income and total cost variable. Therefore, profit is one of the performance measurement indicators of an economic entity. Profit ratios indicate the entity's ability and success to realize profits from sales or available assets.

3.Sensitivity of market risk (market share) reflects the degree that can be affected by changes in interest rates Market share can be expressed in the company's share of the market. In addition, market share reflects an accurate picture of the work of an economic entity. It also expresses the ability and efficiency of an economic entity to control the market through optimal use of its available resources to scale up sales in the market against the competitors' sales.

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4.Liquidity components demonstrate the adequacy of financial and potential sources to face liquidity needs and the management of funds.
5.The quality of management reflects the efficiency of the Board of Directors and the systems and procedures of top management for identifying, measuring and controlling risks.
6.The adequacy of the capital refers to the ability of a bank to assess the appropriate capital, which is consistent with the nature and content of all kinds of risks and its ability to identify and measure risks.

3.Discussion of Results:

3.1 Data col1ection too1s: To comp1ete their research paper, the researcher re1ied on two types of tools, as fol1ows:

3.1.1 Theoretical side: It aims to show theoretical concepts that are related to the topic of the study and its variables. To achieve this target, this side used scientific sources, which include various scientific academic sites, articles, reports, research, and dissertations. In addition, this theoretical side used the above sources to prove the capabilities of measuring the influence of the credit risk of DFIs on the performance of Iraqi banks.

3.1.2 The practical aspect: The questionnaire is designed based on the research variables that are appropriate to the nature of the research sample. The main question included the obtained data to implement and design the practical aspect, after examining the research sample directly. The researcher used the 5-point Likert scale because it is characterized by accuracy and is frequently used in accounting studies.

3.2 Statistical methods used:

The researcher used a set of statistical methods through the statistical program (SPSS). These methods are the arithmetic mean (AM), standard deviation, multiple linear regression, and the selection coefficient (R^2). The statistical methods are used to test the validity of the hypothesis of the research, which states that there is a highly significant effect of the credit risks of development finance institutions on the performance of commercial banks.

3.3 Analysis of Sample Response Results:

This paragraph contains a statistical analysis of the influence of credit risks of DFIs on the performance of Iraqi banks. Arithmetic Mean (AM) and percentages were used to determine the answers of the selected research sample:

1.The answers of the sample agreed that the use of DFIs aims to reduce exposure to interest rate risks, exchange rates, and price fluctuations through entering into these contracts. Banks or other enterprises can cover market risks, to which they are exposed by an agreement ratio which is (89.7%) and by AM which is (3.61%).
2.Sample answers revealed that the use of DFIs exposes users to unsustainable levels of risk by an agreement ratio which is (88.8%) and by AM which is (3.46%).
3.The sample agreed that the use of DFIs is the main source of the most fundamental problems that affect the origin of all operations and the resulting ones and is reflected in the accounting for those derivatives at all stages of recognition, measurement, hedging and disclosure in the financial analysis process. This result is supported by the agreement ratio which is (88.8%) and by the AM which is (3.35%).
4.The use of DFIs contributes to achieving many advantages when used in a mandatory manner. This requires looking at the risks associated with DFIs and not at the positives of precaution. This is what the sample agreed by an agreement ratio which is (84.6%) and by the AM which is (3.46).
5.The literature confirmed that the use of DFIs helps to increase the risk of economic losses that are incurred by the economic entity as a result of weaknesses in the management and operation of derivatives contracts and terms of an agreement (84.6%) and by the AM which is (3.43%)

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6.The sample answers agreed that the performance of economic entities by measuring profitability and market share is a financial collection, as well as the use of DFIs contributes to increasing the ability of economic entities to increase market share by (74.4%) and by the AM which is (3.74).
7.The sample agreed that the performance evaluation reflected what had been achieved based on labour standards, as it provided information on the skills required by the entity to complete the work fully. Moreover, the use of DFIs contributed to the development of products in new distribution outlets, with an agreement ratio which is (82.1%) and an AM which is (3.66%).
8.The sample agreed that the evaluation process helps to compare actual performance with results and objectives to be achieved and thereafter provides feedback to senior administration, which works to provide work requirements. This in turn contributes to evaluating results and making the right decisions to address wrong deviations and correct courses of action. The use of DFIs contributes to increasing its ability to use its available resources by an agreement ratio which is (74.4%) and by the AM which is (3.74%).
9.The sample confirmed that performance indicators based on the accounting profit, such as return on assets, return on equity, earnings per share and cash flow for each share, contribute an evaluating performance, as well as that the use of DFIs contributes to the increase of profits and an agreement ratio which is of (92.3%) and by the AM which is (3.30%).
10. Performance measurement by using profit ratios indicates the ability and success of an economic entity to realize profits from sales or available assets that can be increased through the use of DFIs. This is confirmed by the sample agreement ratio which is (87.1%) and by the AM which is (3.43%).

Table 1: Analysis of the Influence of Credit Risks of DFIs in the Performance of Iraqi Banks

Phrases	Totally agree%	Agree %	Neutral %	Disagree %	Disagree %	AM	SD
Using DFIs aims to reduce exposure to interest rate risks, exchange rates and price fluctuations.	48.7	41.0	10.3	--	--	3.615	0.673
Using DFIs exposes users to unsustainably high levels of risk.	71.8	10.3	17.9	--	--	3.461	0.789
Using DFIs results in fundamental problems that are reflected in accounting for these derivatives at all stages of recognition, measurement, hedging and disclosure in the financial analysis process.	74.4	15.4	10.3	--	--	3.359	0.668
DFIs contribute to many advantages when identifying and addressing associated risks.	69.2	15.4	15.4	--	--	3.461	0.755
DFIs help to identify risks related to economic losses incurred by the economic entity as a result of weaknesses in the management and operation of derivatives contracts.	71.8	12.8	15.4	--	--	3.435	0.753
Using of DFIs contributes to increasing their capacity to increase market share.	51.3	23.1	25.6	--	--	3.743	0.849

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Performance evaluation reflects what has been achieved based on the use of DFIs that contribute to the development of financial performance.	51.3	30.8	17.9	--	--	3.666	0.772
The evaluation process helps to compare actual performance with the results and targets to be achieved as DFIs contribute to increasing their capacity to use their available resources.	51.3	23.1	25.6	--	--	3.743	0.849
Accounting profit-based performance indicators, such as return on assets, return on property rights, earnings per share and cash flows per share, contribute to the evaluation of performance, as well as the use of DFIs that contribute to increasing profits.	76.9	15.4	7.7	--	--	3.307	0.613
Measuring performance using profit ratios indicates the extent to which the economic entity is able and successful in generating profits from sales or available assets that can be increased through the use of DFIs.	69.2	17.9	12.8	--	--	3.435	0.718
A.M.						3.43	0.44

Source: Table is prepared by the researcher based on SPSS

Based on the table (1), the AM of this axis is (3.43), which is greater than the hypothetical median value of (3). This means that the sample answers in this axis are geared towards the strongly approved compatibility, with a standard deviation (0.44)

3.4 Presentation of the Results of the Test of the Research Hypothesis Statistically:

Hypothesis test results showed that the calculated F value was (2.775) higher than its value table (2.619) at an indicative level (0.05) and a freedom degree (68). This means that there is a noticeable impact of risk credit of DFIs in the performance of Iraqi banks. The indication of a positive beta coefficient means that the effect is positive (direct relationship) and is an indicator of the degree of risk at (0.17), Which shows that there is a value positive to it. This shows that when one company changes in the impact at the credit risk of DFIs, it increases by (17%) in the performance of banks. The determination factor R2 was (0.27), indicating that the independent variable explains the credit risk of DFIs (27%) of the change in the approved variable of banks' performance. This demonstrates the result of testing the research hypothesis, which states that there is a statistically significant influence on the credit risks of development finance institutions in the performance of banking activities. The regression equation is:

$Y = 0.17 + 0.35\ X1.$

As:

Y: Performance of banks

X1: Credit risk for DFIs

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Table 2: Test Regression of the Simp1e Linear of the Influence of the Credit Risk of DFIs in Improving Banks' Performance

Fixed Value	Beta coefficient value	R^2 Value	R Value	Calculated F Value	Freedom Degree	Tabular F value	Significance
0.35	0.17	0.27	0.165	2.775	68,1	2.619	Having an effect

Source: Table is prepared by the researcher based on SPSS

4. Conclusion:

Financial derivatives contribute to facilitating the collection, of cash liquidity for the growth of companies and economic entity institutions of various types, through the method of issuing shares and securities to finance their expansion activities. The importance of the existence of DFIs has emerged as new financial instruments that contribute to satisfying the needs of the investor, Which derives its market value through the prices current of financial or in-kind assets such as bonds, stocks, foreign currencies, gold and other commodities. Therefore, Credit risks of DFIs are the most widespread risks in irregular financial markets compared to regular financial markets. This requires attention to irregular markets and assessing the creditworthiness of their clients. In addition, a performance evaluation is a measure to ensure that the actual performance of the activity is following the predetermined performance criteria, and evaluation is a requirement for the economic entity to achieve its objectives based on the established parameters. Therefore, Performance measurement by using profit ratios indicates the ability and success of an economic entity to realize profits from sales or available assets that can be increased through the use of DFIs. From what was mentioned previously, the study concludes that there is a high impact on the credit risks of DFIs in the performance of Iraqi banks.

Authors Declaration:

Conflicts of Interest: None

-We Hereby Confirm That All The Figures and Tables In The Manuscript Are Mine and Ours. Besides, The Figures and Images, Which are Not Mine, Have Been Permitted Republication and Attached to The Manuscript.

- Ethical Clearance: The Research Was Approved By The Local Ethical Committee in The University.

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انعكاس المخاطر الائتمانية باستخدام الادوات المالية المشتقة في اداء المصارف التجارية

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مستخلص البحث:
يهدف البحث الى معرفة انعكاس المخاطر الائتمانية باستخدام الادوات المالية المشتقة في اداء المصارف التجارية العراقية. ولتحقيق هدف البحث واختبار فرضيته الرئيسة تم استخدام استمارة الاستبيان التي وزعت على عدد من البنوك التجارية المدرجة في سوق العراق للأوراق المالية التي تتعامل بالأدوات المالية المشتقة , تم اعتماد الاستبانة كأداة رئيسية في جمع البيانات، وتم تحليل البيانات المالية لمتغيرات الدراسة باستخدام أسلوب الانحدار الخطي البسيط والمتوسط الحسابي والانحراف المعياري, باستخدام برنامج التحليل الإحصائي (SPSS) . ولقد تم توزيع 70 استمارة على عينة البحث وتم استرداد 68 استمارة صالحة للتحليل . نتائج البحث أن الانهيارات المتتالية في أسواق الأوراق المالية العالمية في ظل المنافسة القوية بين المؤسسات المالية والمصرفية في سباق تدفع هذه المؤسسات عبر أقسام البحث والابتكار لخلق أدوات مالية جديدة لإدارة المخاطر وتقديم حلول لمشاكل التمويل . وان الأزمة المالية هي نتيجة للإفراط في استخدام المشتقات المالية خارج القيود التنظيمية والتوريق للحصول على السيولة النقدية . تمثل المشتقات المالية أسرع أشكال المعاملات المالية نموًا وقد استمرت في النمو حتى في ظروف الأزمات المالية. تسهم مؤشرات الأداء المبنية على الربح المحاسبي، مثل العائد على الأصول والعائد على حقوق الملكية وربحية السهم والتدفقات النقدية للسهم في تقييم الاداء فضلا عن ان استعمال الادوات المالية المشتقة التي تسهم في زيادة الارباح. أن المخاطر الائتمانية باستخدام DFI لها تأثير على الأداء المالي في البنوك التجارية العراقية.

نوع البحث: ورقة بحثية.
المصطلحات الرئيسة للبحث : المخاطر الائتمانية , الادوات المالية المشتقة, اداء المصارف.